

### AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A delivery composition for delivery of an active molecule to a patient, said delivery system comprising a population of exopolysaccharide micelles comprising exopolysaccharide produced by a bacterium selected from the group of bacteria consisting of *Lactobacillus* strain R2C2 (IDAC 041202-3), *Lactobacillus* strain Inix (IDAC 041202-4), *Lactobacillus* strain Esl (IDAC 041202-2), *Lactobacillus* strain K2 (IDAC 041202-1), each said micelle including a core for containing said active molecule.

2. - 3. (Canceled)

4. (Previously Presented) The delivery composition of claim 1, wherein said active molecule is selected from the group consisting of DNA, RNA, protein, peptide, peptidomimetic, virus, bacteria, nutraceutical product and pharmaceutical agent.

5. (Previously Presented) The delivery composition of claim 4, wherein said pharmaceutical agent is selected from the group consisting of analgesic, anesthetic, antibiotic, anticancer, anti-inflammatory, and antiviral.

6. (Previously Presented) The delivery composition of claim 5, wherein said anticancer agent is selected from the group consisting of alkylating agents, alkyl sulfonates, aziridines, ethylenimines, methylamelamines, acetogenins, camptothecin, bryostatins, calystatin, CC-1065, cryptophycins, dolastatin; duocarmycin, eleutheroxin, pancerastatin, sarcodictyin, spongistatin, nitrogen mustards, nitrosoureas, antibiotics, anti-metabolites, folic acid analogues, denopterin, methotrexate, pteropterin, trimetrexate, purine analogs, pyrimidine analogs, androgens, anti-adrenals, folic acid replenisher, aceglutone, aldophosphamide glycoside, aminolevulinic acid, amsacrine, bestabucil, bisantrene, edatraxate, defofamine, demecolcine, diaziquone, elformithine, elliptinium acetate, epothilone, etoglucid, gallium nitrate, hydroxyurea, lentinan, lonidamine, maytansinoids, mitoguazone, mitoxantrone, mopidamol, nitracrine, pentostatin, phenamet, pirarubicin, podophyllinic acid, 2-ethylhydrazide, procarbazine, PSK,

RTM, razoxane, rhizoxin, sizofiran, spirogermanium, tenuazonic acid, triaziquone, 2,2',2"-trichlorotriethylamine, trichothecenes, urethan, vindesine, dacarbazine, mannomustine, mitobronitol, mitolactol, mitolactol, pipobroman, gacytosine, arabinoside, thiotepa, taxanes, chlorambucil, gemcitabine, 6-thioguanine, mercaptopurine, methotrexate, platinum, vinblastine, platinum, etoposide, ifosfamide, mitomycin C, mitoxantrone, vincristine, vinorelbine, navelbin, novantrone, teniposide, daunomycin, aminopterin, xeloda, ibandronate, CPT-11, topoisomerase inhibitor RFS 2000, difluoromethylomithine, retinoic acid, capecitabine, and anti-hormonal agents that act to regulate or inhibiting hormone action in hormonal dependent cancers.

7. (Withdrawn) The delivery composition of claim 6, wherein said anti-hormonal agent is an anti-estrogens or an anti-androgens selected from the group consisting of flutamide, nilutamide, bicalutamide, leuprolide, and goserelin, and pharmaceutically acceptable salts, acids or derivatives thereof.

8. (Withdrawn) The delivery composition of claim 6, wherein said alkylating agents is selected from the group consisting of thiotepa and cyclophosphamide(CYTOXAN).

9. (Withdrawn) The delivery composition of claim 6, wherein said alkyl sulfonates is selected from the group consisting of busulfan, improsulfan and piposulfan.

10. (Withdrawn) The delivery composition of claim 6, wherein said aziridines is selected from the group consisting of benzodopa, carboquone, meturedopa, and uredopa.

11. (Withdrawn) The delivery composition of claim 6, wherein said methylamelamines is selected from the group consisting of altretamine, triethylenemelamine, triethylenethiophosphoramide and trimethylolmelamine.

12. (Withdrawn) The delivery composition of claim 6, wherein said acetogenins is selected from the group consisting of bullactacin and bullatacinone.

13. (Withdrawn) The delivery composition of claim 6, wherein said camptothecin is the synthetic analogue topotecan.

14. (Withdrawn) The delivery composition of claim 6, wherein said CC-1065 is selected from the group consisting of adozelesin carzelesin and bizelesin synthetic analogues thereof.

15. (Withdrawn) The delivery composition of claim 6, wherein said cryptophycins is selected from the group consisting of cryptophycin 1 and cryptophycin 8.

16. (Withdrawn) The delivery composition of claim 6, wherein said duocarmycin is selected from the group consisting of KW-2189 and CBI-TMI.

17. (Withdrawn) The delivery composition of claim 6, wherein said nitrogen mustards is selected from the group consisting of chlorambucil, chlornaphazine, cholophosphamide, estramustine, ifosfamide, mechlorethamine, mechlorethamine oxide hydrochloride, melphalan, novembichin, phenesterine, prednimustine, trofosfamide and uracil mustard.

18. (Withdrawn) The delivery composition of claim 6, wherein said nitrosoureas is selected from the group consisting of carmustine, chlorozotocin, fotemustine, lomustine, nimustine, ranimustine.

19. (Withdrawn) The delivery composition of claim 6, wherein said anti-metabolites is selected from methotrexate and 5-fluorouracil (5-FU).

20. (Withdrawn) The delivery composition of claim 6, wherein said purine analogs is selected from the group consisting of fludarabine, 6-mercaptopurine, thiamiprine and thioguanine.

21. (Withdrawn) The delivery composition of claim 6, wherein said pyrimidine analogs is selected from the group consisting of ancitabine, azacitidine, 6- azauridine, carmofur, cytarabine, dideoxyuridine, doxifluridine, enocitabine and floxuridine.

22. (Withdrawn) The delivery composition of claim 6, wherein said androgens is selected from the group consisting of calusterone, dromostanolone propionate, epitio stanol, mepitio stanol, testolactone.

23. (Withdrawn) The delivery composition of claim 6, wherein said anti-adrenals is selected from the group consisting of aminoglucethimide, mitotane and trilostane.

24. (Withdrawn) The delivery composition of claim 5, wherein said antibiotics is selected from the group consisting of enediyne antibiotics, aclacinomysins, actinomycin, anthracycline, azaserine, bleomycins, cactinomycin, carubicin, carminomycin, carzinophilin, chromomycins, dactinomycin, daunorubicin, detorubicin, 6-diazo-5-oxo-L-norleucine, doxorubicin, morpholino-doxorubicin, cyanomorpholino-doxorubicin, 2-pyrrolino-doxorubicin, deoxydoxorubicin, epirubicin, esorubicin, idarubicin, marcellomycin, mitomycins, mycophenolic acid, nogalamycin, olivomycins, peplomycin, poffiromycin, puromycin, quelamycin, rodorubicin, streptonigrin, streptozocin, tubercidin, ubenimex, zinostatin, and zorubicin.

25. (Withdrawn) The delivery composition of claim 24, wherein said enediyne antibiotics is selected from the group consisting of calicheamicin, dynemicin, esperamicin, neocarzinostatin chromophore and related chromoprotein enediyne antibiotic chromophores.

26. (Withdrawn) The delivery composition of claim 25, wherein said calicheamicin is selected from the group consisting of calicheamicin  $\gamma_1$  and calicheamicin O<sub>11</sub>.

27. (Withdrawn) The delivery composition of claim 25, wherein said dynemicin is dynemicin A.

28. (Withdrawn) The delivery composition of claim 1, wherein said micelles have a diameter varying from about 50 nanometers to about 700 nanometers.

29. (Previously Presented) A pharmaceutical composition comprising the delivery composition of claim 1 in association with a pharmaceutically acceptable carrier.

30. (Previously presented) An immunomodulator composition comprising the delivery system of claim 1 in association with a pharmaceutically acceptable carrier.

31. (Withdrawn) A method for delivering an active molecule to a patient comprising the step of administering the composition of claim 29 to said patient.

32. (Withdrawn) The method of claim 31, wherein said administering can be by a route selected from the group consisting of local, parenteral, peritoneal, mucosal, dermal, epidermal, subcutaneous, transdermal, intramuscular, nasal, oral, topical, vaginal, rectal, intra-ocular, intravenous, intra-arterial and by inhalation.

33. (Withdrawn) A method for inducing immunomodulation in a patient comprising the step of administering the composition of claim 30 to said patient.

34. (Withdrawn) The method of claim 33, wherein said administering can be by a route selected from the group consisting of local, parenteral, peritoneal, mucosal, dermal, epidermal, subcutaneous, transdermal, intramuscular, nasal, oral, topical, vaginal, rectal, intra-ocular, intravenous, intra-arterial and by inhalation.

35. - 38. (Canceled)

39. (Withdrawn) A method for producing the delivery composition of claim 1, comprising the step of incubating exopolysaccharide in a suitable medium for a time sufficient to form a micelle.

40. (Previously Presented) The delivery composition of claim 6, wherein said anticancer agent is a taxane.